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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/097,221	06/12/98	BERTRAM	R LINAB-48525

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EXAMINER

NOLAN, S

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 04/18/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/097,221

Applicant(s)
BERTRAM

Examiner
Sandra Nolan

Group Art Unit
1772



☒ Responsive to communication(s) filed on Feb. 14, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 16-46 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 16-46 is/are rejected.

☒ Claim(s) 41 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Restriction Requirement Withdrawn

1. Pursuant to Applicant's arguments in his response of February 18, 2000 (Paper No. 6), the claims of Group II, i.e., claims 16-35 have been rejoined with those of Group I, i.e., claims 36-46, as amended in Paper No.6.

Since all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement made in the Office Action of September 8, 1999 (Paper No. 3) is hereby withdrawn.

Rejections Withdrawn

2. The 35 USC 112 rejection of claims 8 and 9 as indefinite, as stated in paragraph 6 of Paper No. 3, is withdrawn in view of the amendments submitted in Paper No. 6.

3. The 35 USC 103 rejection of claims 1-12, 14, and 15 Offill (US 5,817,200) and Livingston (US 5,879,501) and Rosemund et al (US 4,060,439), as stated in paragraph 7 of Paper No. 3, is withdrawn in view of the amendments and arguments submitted in Paper No. 6.

4. The 35 USC 103 rejection of claim 13 as being unpatentable over Offill, Livingston and Rosemund et al and Ranney et al (US 4,015,044), as stated in paragraph 8 of Paper No. 3 is withdrawn in view of the amendments and arguments submitted in Paper No. 6.

New Claim Objection

5. Claim 41 is objected to because of the following informalities: The term "resin" does not encompass the monomeric substances recited in the claim. Appropriate correction is required.

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New Claim Rejections - 35 USC § 112

6. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "at least some" is indefinite. Applicant should use language that indicates the amount of mineral(s) present.

New Claim Rejections - 35 USC § 103

7. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Offill (US 5,817,200) in view of Rosemund et al (US 4,060,439) and Muller et al (US 5,029,615).

Offill shows a method for surfacing pipes and other structures (col. 1, lines 12+) by placing a liner ^{PVC (5144)} having protrusions or ribs on its back face into the pipe and then injecting a resinous "carrier"/interlayer (col. 6, lines 53+) between the liner and the pipe surface to form a composite. See the abstract. ~~The thickness of the polyvinyl chloride (PVC) liner used is said to be related to such factors as flexibility, geometry, etc. (col. 5, lines 45+).~~ Offill does not teach ^{silanes or resins} ~~the~~ _{with a} chemical composition of applicant's polyurethane interlayer. ^{PVC}

Rosemund et al shows polyurethane--i.e., isocyanate/polyol--foams being used to bond various substrates, including PVC (col. 8, line 4), and mineral-containing substrates, such as brick, sandstone, plaster and cement (col. 8, lines 14+). The foams can contain amine catalysts (col. 6, line 46), surfactants (col. 7, line 61), blowing agents (col. 7, lines 24+), and curing agents (col. 6). Rosemund et al do not show silanes or the claimed pipe treating process.

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Muller et al disclose the conventionality of presoaking a polymeric liner with a resin before placing it into a pipe. See the abstract. They do not teach the injection process or the polyurethane foams claimed.

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to employ the presoaking technique of Muller et al in order to make sure than the appropriate surface of the liner is penetrated by the resin binder and use the presoaked layer with the polyurethanes, surfactants, blowing agents and curing agents of Rosemund et al in making injection bonded liners for use in treating pipes via the process of Offill. The selection of suitable thicknesses for the PVC liner would have been an obvious matter of design/engineering choice, as taught by Offill.

8. Claims 26 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Offill, Rosemund et al and Muller et al as applied to claims 16-25, 27-43, 45, and 46 above, and further in view of Ranney et al (US 4,015,044).

Offill, Rosemund et al and Muller et al are discussed above.

Ranney et al show silane primers blended with polyurethane sealants to be used with a variety of substrates. See the abstract and col. 7, lines 14+.

It would have been obvious to one of ordinary skill in the art to blend the silane primers of Ranney et al into the polyurethane foam to be used as interlayers in the process suggested by the combination of Offill, Rosemund et al and Muller et al, above in order to improve adhesion in the composite.

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Response to Arguments

9. Applicant's arguments with respect to claims 36-46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is (703) 308-9545. The examiner can normally be reached on Monday through Thursday from 7:00 am to 4:00 pm. She can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ellis P. Robinson, can be reached on (703) 308-2364. The fax phone number for the organization where this application is assigned is (703) 305-5408. The telephone number for the receptionist is (703) 308-0661.



S. M. Nolan
Patent Examiner
Technology Center

SMN/smn
April 17, 2000
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